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computers & communications

TOWARD A COMPUTER UTILITY

A Three-Day Conference
March 20-22, 1967
at UCLA

T NELSON
VASSAR COLLEGE
POUGHKEEPSIE N Y 12601
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SECOND CLASS POSTAGE PAID
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FOR

Programmers, system designers and the potential user caught in the definitization of the new concepts of the Computer Utility. While this symposium presupposes a general familiarity with data processing, the emphasis is upon the unique aspects, technical and philosophical, that the practitioner and the user face in discussing the potential of these new developments.

Demonstrations by the leading commercial time-sharing organizations illustrate the equipment, systems and services now available.

PURPOSE

From the technical advances of the past decade—microwaves and microelectronics, satellites, and the multiprogramming/time-sharing concept—have come new communication equipment and a new generation of computers. With these advances, the data processing industry and the communication common carriers have been lead inexorably toward the concept of the Computer Utility. Is an easy and intoxicating concept for it is a major step in the realization of the dream of universal, instantaneous availability of information. Now the plethora of of data services and computer networks, announced and on the drawing boards, may indicate the realistic potential of the market rather than problems of the past.

In this symposium the pioneers and leaders who have shaped the Time Sharing Communication Computer Utility concept take a hard look at the State-of-the-art both in its larger terms—the architecture of hardware and software—and in its more specific fields of application.

The focus is on the role of the Computer Utility in

business, education, medicine, and in governmental services pointing out both the potential and the problem.

Deceptively, the concepts that underlie the Computer Utility appear straight forward and simple. Such is not the case; cost-effectiveness, which cannot be ignored, is flavored with subjective evaluations that are most appealing to the user and manager alike. True cost, built on the cost of communications circuits and terminal equipment, computers and the attendant software, is subject to various public and private pricing structures that vitiate analysis. Such practices lead to questions still unresolved concerning monopoly, regulation, and the public welfare. Similarly large data bases, shared by a utility, raise problems of privacy and protection. To these questions of importance this symposium is dedicated.

For the computer user and the system engineer who would shape the future, there is a need to understand the potential and the problem of the infant Computer Utility, born of the union of the data processing industry and the communications common carrier.

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Schoenberg Hall, UCLA

March 20-22, 1967

PRESENTED BY

The College of Engineering, UCLA

**Engineering Extension, University of California
Extension, Los Angeles**

in cooperation with

Informatics, Inc.

Sherman Oaks, California

UNIVERSITY EXTENSION

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WEDNESDAY, MARCH 22

(coffee is served at 8:00 a.m.)

Morning Session

Chairman

DR. BERTRAM BUSSELL, Associate Professor of Engineering, UCLA

Factors for the Evaluation of Integrated On-Line Information Systems 8:30

MR. FRANK R. HEATH, Director of Systems Planning, Carrier Corporation, Syracuse, New York

Educational Information Networks 9:30

DR. GEORGE W. BROWN, Professor of Engineering and of Business Administration, UCLA; Chairman, EDUCOM Task Force on Education Networks

Medical Data Processing—A Utility Concept 10:30

DR. BALDWIN G. LAMSON, Director of Hospitals and Clinics, UCLA

Computers and the Public Welfare—Law Enforcement, Social Services and Data Banks 11:30

COL. HAROLD R. JOHNSON, USAF, Assistant Director, Telecommunications Management, Executive Offices of the President, Washington, D.C.

Luncheon Break 12:30

Afternoon Session

Chairman

MR. FRANK WAGNER, Vice President, Western Operations, Informatics, Inc., Sherman Oaks, California

The Trials and Tribulations of the Computer Utility Concept—Social Implications and Safeguards 1:30

(Emphasis on Privacy and Access Control)
MR. PAUL ARMER, Associate Head, Computer Sciences Department, The RAND Corporation, Santa Monica, Calif.

Federal Regulations and Monopoly 2:30

PROFESSOR MANLEY IRWIN, Assistant Professor of Economics, University of New Hampshire, Durham, New Hampshire

The Synthesis of Communications and Computers 3:30

MR. ROBERT S. GRISETTI, Assistant Vice President for Systems Engineering, The Western Union Telegraph Company, Paramus, New Jersey

CONFERENCE COORDINATORS

Dr. Robert W. Rector
Dr. Sam M. Houston, Assistant Head, Engineering Extension, University of California Extension, Los Angeles

PROGRAM CONSULTANTS

Dr. A. A. Avizienis
Dr. Sam M. Houston
Dr. Michel A. Melkanoff
Dr. Robert W. Rector
Mr. Jack Rosenberg

FEE
\$75.00, does not include proceedings

PROCEEDINGS
The Proceedings may be ordered at the time of the Conference

ENROLLMENT DEADLINE
To assure space, enrollments should be received by the University before March 15, 1967. Enrollment at the door only if space permits.

INFORMATION

For information concerning the program, write or call Engineering Extension, Room 6266, Boelter Hall, University of California, Los Angeles, California 90024. Phone: (Area Code 213) 478-9711 or 272-8911, Extension 7277 or 7178.

PARKING

The charge for campus parking is 75¢ per entry. Quarters are required for coin operated gates. Please observe signs indicating restricted areas. Cars not bearing the permit indicated are subject to citation. Attendants at campus entrances will direct you to appropriate parking areas.

ENROLLMENT FORM

Computers and Communications
Toward a Computer Utility

March 20-22, 1967

MAIL TO: Department K
University of California Extension
Los Angeles, California 90024

Enclosed is check (payable to The Regents of the University of California) for \$_____ to cover_____ enrollments (\$75).

Name (please print name in full)		
Social Security No. (for data processing purposes)		
Position or Title		
Company Name		Address
City	State	ZIP Code
Home Address		Daytime Phone
City	State	ZIP Code

For additional enrollments use a separate sheet giving information requested above

PROGRAM

MONDAY, MARCH 20

Registration 8:00-9:30
(coffee is served)

Opening Remarks 9:30
DR. CHAUNCEY STARR, Dean, College of Engineering, UCLA
DR. ROBERT W. RECTOR, Vice President, Plans and Programs, Informatics, Inc., Sherman Oaks, California

Morning Session

Chairman
MR. JACK ROSENBERG, Staff Member, IBM Scientific Center, Los Angeles

New Directions in Computer Utilization 10:00
NORMAN REAM, Assistant to the Secretary of the Navy for Data Management Systems, Washington, D.C.

Toward the Utility Concept—History, Trade-offs and Cost Effectiveness (Including Definition of Utility Concept) 11:00
DR. WALTER F. BAUER, President, Informatics, Inc., Sherman Oaks, California

Luncheon Break 12:00

Afternoon Session

Chairman
DR. MICHEL A. MELKANOFF, Professor of Engineering, UCLA

Progress and Prognosis—Computer Utility and the Community 1:30
PROFESSOR ROBERT M. FANO, Professor of Electrical Engineering, Director of Project MAC, Massachusetts Institute of Technology, Cambridge, Massachusetts

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TOWARD A COMPUTER UTILITY

The Transition from Academy to Industry 2:30
PROFESSOR HARRY D. HUSKEY, Professor of Electrical Engineering, University of California, Berkeley

The Computer Utility in a Governmental Framework 3:30
MR. EDMUND D. DWYER, Assistant Commissioner, Federal Supply Service, Office of Automated Data Management Services, Washington, D.C.

TUESDAY, MARCH 21

(coffee is served at 8:00 a.m.)

Morning Session

Chairman
MR. IRVING COHEN, Vice President, Systems Engineering, Informatics, Inc., Sherman Oaks, California

The Market and Special Requirements for the Computer Utility 8:30
MR. WILLIAM LONEGRAN, Vice President, Product Planning, EDP Division, RCA, Cherry Hill, New Jersey

From Research and Development to the Computer Utility—A Users Report 9:30
MR. GUY DOBBS, Manager, Computation Center, System Development Corporation, Santa Monica, California

Common Carrier Approach to Digital Data Transmission Terminals, Transmission Equipment and Future Plans for the Computer Utility 10:30
MR. PAUL MUENCH, Supervisor, Voiceband Serial Data Service, Bell Telephone Laboratories, Holmdel, New Jersey

Satellite Communications for the Utility Computer 11:30
MR. JAMES D. RINEHART, Head, Systems Simulation Department, COMSAT Corporation, Washington, D.C.

Luncheon Break 12:30

Afternoon Session

Chairman
DR. A. A. AVIZIENIS, Assistant Professor of Engineering, UCLA

Architecture for On-Line Systems 2:00
DR. GENE M. AMDAHL, IBM Fellow, IBM, San Jose, Calif.

Communication Oriented Executive Systems 3:00
MR. RICHARD H. HILL, Vice President, Programming and MR. WILSON COOPER, Member, Technical Staff, Informatics, Inc., Sherman Oaks, California

Systems Design for On-Line Service Systems 4:00
DR. MONTGOMERY PHISTER, Senior Vice President and Director of SDS Data Systems, Scientific Data Systems, Santa Monica, California

